KARYA TULIS AKHIR

PERKEMBANGAN PENATALAKSANAAN PADA KELAINAN REFRAKSI

Oleh:

Aninda Putri Mulyani

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FAKULTAS KEDOKTERAN

UNIVERSITAS MUHAMMADIYAH MALANG

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HASIL PENELITIAN

PERKEMBANGAN PENATALAKSANAAN PADA KELAINAN REFRAKSI

KARYA TULIS AKHIR

Diajukan kepada
Universitas Muhammadiyah Malang
untuk Memenuhi Salah Satu Persyaratan
dalam Menyelesaikan Program Sarjana
Fakultas Kedokteran

Oleh:

Aninda Putri Mulyani

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FAKULTAS KEDOKTERAN
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2020

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Karya tulis akhir ini adalah karya saya sendiri, dan semua sumber baik yang dikutip maupun dirujuk telah saya nyatakan dengan benar.

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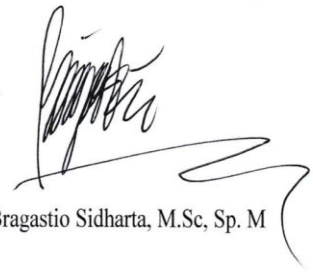
pada tanggal 3 Juli 2020.

Tim Penguji



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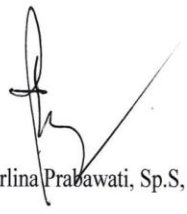

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Penulis menyadari bahwa penyusunan tugas akhir ini jauh dari sempurna, walaupun demikian penulis telah berusaha semaksimal mungkin serta mendapatkan bantuan dan bimbingan dari dosen pembimbing dalam rangka penyusunan. Tanpa bantuan dan dorongan dari berbagai pihak, sangatlah tidak mudah menjalani masa perkuliahan hingga pada penyusunan tugas akhir ini.

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Malang, 20 Juli 2020

Penulis

RINGKASAN

Mulyani, Aninda Putri. 2020. **Perkembangan Penatalaksanaan Pada Kelainan Refraksi**, Fakultas Kedokteran Universitas Muhammadiyah Malang. Pembimbing : (1) Bragastio Sidharta(*); (2) Risma Karlina Prabawati (**)

Kelainan refraksi yang tidak terkoreksi merupakan penyebab utama gangguan visual secara global. Tugas akhir ini bertujuan untuk menjelaskan perkembangan penatalaksanaan kelainan refraksi. Kacamata dan lensa kontak merupakan pilihan aman untuk mengoreksi kelainan refraksi. Namun, kacamata menyebabkan asthenopia, sedangkan penggunaan lensa kontak jangka panjang menyebabkan neovaskularisasi kornea. *Laser-assisted in-situ keratomileusis* (LASIK) merupakan prosedur untuk mengoreksi kelainan refraksi walaupun tidak dapat dilakukan pada kornea yang tipis. *Photorefractive keratectomy* (PRK) dan *Laser-assisted subepithelial keratomileusis* (LASEK) yang dapat dilakukan pada pasien dengan kornea tipis, memiliki kekurangan di mana PRK tidak dapat digunakan pada pasien dengan dioptri tinggi, sedangkan LASEK menyebabkan nyeri pascaoperasi. Pasien dengan dioptri tinggi dapat memilih *Phakic intraocular lens* (PIOL) dan *Refractive lens exchange* (RLE). Meskipun demikian PIOL menyebabkan hilangnya sel endotel, sedangkan RLE tidak dapat dilakukan pada pasien dengan lensa yang masih berfungsi. *Small incision lenticule extraction* (SMILE) memiliki kemungkinan komplikasi yang kecil tetapi kurang baik untuk mengoreksi astigmatisma. *Laser-induced refractive index correction* (LIRIC) merupakan teknik non invasif bedah refraktif tetapi stabilitasnya belum diketahui. Penatalaksanaan kelainan refraksi memiliki kelebihan dan kekurangannya masing-masing. Konsultasi rutin menjadi kunci keberhasilan penatalaksanaan kelainan refraksi.

Kata kunci: Kelainan refraksi, Penatalaksanaan kelainan refraksi

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SUMMARY

Mulyani, Aninda Putri. 2020. **Development Of The Medical Procedure Of Refractive Error.** Faculty of Medical Science, University of Muhammadiyah Malang. Advisors: (1) Bragastio Sidharta (*); (2) Risma Karlina Prabawati (**)

Uncorrected refractive errors are the leading cause of visual impairment worldwide. This literature review aims to explain the development of management of refractive errors. Spectacles and contact lenses are safe way to correct refractive errors. Glasses cause asthenopia, whereas long-term use of contact lenses cause corneal neovascularization. Laser-assisted in-situ keratomileusis (LASIK) can correct refractive errors even though it cannot do on thin corneas. Photorefractive keratectomy (PRK) and Laser-assisted subepithelial keratomileusis (LASEK) can be done on thin corneas however, PRK cannot be used in patients with high diopters, whereas LASEK cause postoperative pain. Patients with high diopters should Phakic intraocular lens (PIOL) and Refractive lens exchange (RLE). However, PIOL causes endothelial cell loss, whereas RLE cannot do in patients with functioning lenses. Small incision lenticule extraction (SMILE) has a minimum possibility of complications but is not the best choice for correcting astigmatism. Laser-induced refractive index correction (LIRIC) is a non-invasive technique in refractive surgery but its stability is still unknown. Management of refractive disorders has advantages and disadvantages of each. Regular consultation is the key to the successful management of refractive errors.

Keywords: Refractive error, Medical procedure of refractive error

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DAFTAR ISI

Halaman

DAFTAR GAMBAR

DAFTAR SINGKATAN

ACD	: *Anterior Chamber Depth*
AGPS	*: Alkylglycerone Phosphate Synthase*
AGEs	: *Advanced Glycation End Products*
APLP2	: *Amyloid-Like Protein* 2
BSCVA	: *Best Spectacle-Corrected Visual Acuity*
CDVA	: *Corrected Distance Visual Acuity*
D	: Dioptri
DED	: *Dry Eye Disease*
ECC	: *Endothelial Cell Count*
FDA	: *The Food and Drug Administration*
Femto-LASIK	: *Femtosecond Laser In-Situ Keratomileusis*
GWAS	: *Genome-Wide Association Study*
IOL	: *Intraocular Lens*
IRIS	: *Intratissue Refractive Index Shaping*
KCNQ5	: *Potassium Voltage-Gated Channel Subfamily Q Member 5*
LAMA2	: *Laminin Subunit Alpha* 2
LASEK	: *Laser-Assisted Sub-Epithelial Keratomileusis*
LASIK	: *Laser In-Situ Keratomileusis*
LEPREL1	: *Leprecan-Like Protein* 1
LIRIC	: *Laser-Induced Refractive Index Change*
MRSE	: *Manifest Refraction Spherical Equivalent*
NGR	: *Next Generation Sequencing*
OBL	: *Opaque Bubble Layer*
PC-PIOL	: *Presbyopia-Correcting Phakic Intraocular Lens*
PDE11A	: *Phosphodiesterase* 11A
PDGFRA	: *Platelet-Derived Growth Factor Receptor*
PIOL	: *Phakic Intraocular Lens*
PRK	: *Photorefractive Keratectomy*
PVP	: *Polyvinylpyrrolidone*
RG	: *Rainbow Glare*
RGP	: *Rigid Gas Permeable*
RI	: *Refractive Index*
RLE	: *Refractive Lens Exchange*
SER	: *Spherical Equivalent Refraction*
SMILE	: *Small Incision Lenticule Extraction*
TBUT	: *Tear Breakup Time*
TIO	: Tekanan Intraokular
TTC30A	: *Tetratricopeptide Repeat Domain* 30A
UCVA	: *Uncorrected Visual Acuity*
UDVA	: *Uncorrected Distance Visual Acuity*
VA	: *Visual Acuity*
VAX2	: *Ventral Anterior Homeobox* 2

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Lampiran 3. Hasil Deteksi Plagiasi

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HASIL DETEKSI PLAGIASI

Berikut ini adalah hasil deteksi plagiasi karya ilmiah (naskah proposal / naskah hasil penelitian / naskah publikasi)*

Nama : ANINDA PUTRI MULYANI

Nim : 201910330311112

Judul : PERKEMBANGAN PENATALAKSANAAN PADA KELAINAN REFRAKSI

NO	Bagian	Maksimum Kesamaan	Hasil Deteksi		
			Tgl	Tgl	Tgl
			20/7/20		
1	Bab 1 (Pendahuluan)	10	8%		
2	Bab 2 (Tinjauan Pustaka)	25	1%		
4	Bab 3 (Pembahasan)	15	1 %		
5	Bab 4 (Kesimpulan dan Saran)	5	0%		
6	Naskah Publikasi	25	10%		

Kesimpulan Deteksi Plagiasi : LOLOS / ~~TIDAK LOLOS PLAGIASI~~

Mengetahui
Pembibing 1

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